Michigan Public Service Commission
September 12, 2007

U-15113 Net Metering Task Force

Comments Received on the

Staff's August 2007 Net Metering Proposal

MPSC Staff Net Metering Program Design Proposal for Inverter Based Systems 10 kW and Less August 2007

- **Use a single bi-directional meter to measure and record the following quantities: (1) electricity delivered from the utility (kWh); and (2) electricity delivered to the grid by the customer (kWh).**
- **Bill the customer based on their rate schedule for electricity delivered from the utility.** This part of the bill will not be based on "net" energy usage. Instead, the customer will be billed in the identical manner as a non-net-metering customer, for all electricity delivered by the utility.
- **Provide a net metering credit** on the bill, equal to the utility's retail generation rate (Retail Rate less distribution charge) for electricity, including all power supply charges and surcharges. Staff expects this will be a credit expressed as a dollar amount for the month. The bill should show kWh delivered, monthly power supply charge credit per kWh, and total $ amount.
- **Apply the net metering credit toward the customer's bill total.** Net metering credit can be applied to bring the bill down as low as the minimum bill. Any excess credit will be carried over month to month.

  At the end of each year, the utility would either: (1) give the customer a check for the amount of any unused net metering credits; or (2) continue to allow net metering credits to accumulate. MPSC Staff proposes checks might not be written for any amount less than $50, for example.

  The utility may treat net metering credits as a recoverable power supply cost.
- The utility may choose to calculate the distribution and surcharges the customer would have paid, based on their previous year's usage, absent net metering, but this is done as part of utility accounting for the purpose of making a request to the Commission for future cost recovery and not shown on the customer's bill.

Customer bills will have a normal billing section for the electricity delivered by the utility and then the following extra lines:

- Carryover net metering credit from past months (in $).
- Current month net metering credit based on current month electricity deliveries to the utility (in $). This is the kWh of electricity generated by the customer and delivered to the utility, multiplied by the total power supply charges. (Staff prefers this line item will also indicate the number of kWh and amount of credit per kWh. The per kWh credit is expected to vary each month, along with changes in the utility's PSCR factor.
- Total net metering credit applied to this month's bill.
- Net metering credit carried over to the next month.
- Minimum bill/monthly customer charge
- Total bill due

Baldwin, Julie K (DLEG)

From: Ari lerman-sinkoff [arilerman@gmail.com]
Sent: Tuesday, September 11, 2007 2:24 PM
To: Baldwin, Julie K (DLEG)
Subject: net metering

hi,
i feel that the current "net metering" proposal should be scrapped and re-written. in order to encourage people to switch to green energy sources there should be a fair trade of energy between the power company and individuals operating green energy production.

To: Michigan State Power Commission, the MPSC staff, and all the members of the work-group

I would like to thank the staff at the Michigan Public Service Commission for making an earnest and honest effort to improve what has been proposed as "net metering" in the State of Michigan.

Having reviewed the proposal in some detail I am both happy and sad. The concept of net metering that exists in many states is much simpler than what is proposed here. It simply requires a single meter that sometimes runs backwards and sometimes runs forward.

What the utility proposes bars entry in the way any monopoly reacts when it is threatened with even potential loss of short term profit. The added production of clean, renewable electricity at no cost to the utility, especially at times of peak need, supplies the same goods the power company makes. In order to maintain monopoly status, the power company must be sure that there are no other reasonable suppliers.

What must happen in order for the Commission to gain real consensus in the interest of both the utilities and new small providers of electricity? The utilities will need to recognize the opportunities presented by the new development and reject the concept that renewable energy is a threat to their existence. Why can't they sell the equipment and install it as well? It would clearly be an inexpensive way for the company to acquire new renewable generation capacity. They already have the personnel, tools, and know-how to provide such services.

Only by thinking in larger terms can power companies help lead the way to Michigan's industrial renewal. Cheap, clean power, supervised and managed by the utility company may provide reasons for industries with large electrical power needs to come to Michigan.

These times are difficult. Difficulties, however, often provide rare opportunities for innovation and invention. Electrical innovations which provide solutions to major problems should not be stifled or excessively hindered.

The Carterphone decision rendered by the FCC in June of 1968 provides an excellent historical example of events that are similar to ours in 2007 and provides parallels relating to access, ownership and the public good.

A Texan, Tom Carter had invented a device that connected mobile radio telephones to the telephone system's grid. The phone company first told him that he could not connect but then told him that he would have to pay for costly equipment and use special more expensive phone lines.

The FCC ruled in Carter's favor for many reasons, highlighting the importance of access to an important network on which many depend. Some have suggested that the Carterphone Decision paved the way for the Internet revolution and means of communication and information exchange which could not have been anticipated in 1968.

How can it possibly be wrong today to foster the development of a system which minimizes the need for fossil fuel, makes the electrical grid more robust, and taps the sun for energy more directly and cleanly than coal?

It’s fairly clear to me that the Commission’s own publicly-stated goals apply in this matter, and the Commission is bound to act in the public interest. The published goals of the Michigan State Power Commission are noted below:

Establish fair and reasonable rates for regulated services and adopt and administer fair terms and conditions of service for the State’s utility customers.

Assure adequate and reliable supplies of regulated services to all Michigan customers, and the safe and efficient production, distribution, and use of the State’s energy, telecommunications, and transportation services.

Assure the security of the State’s critical infrastructure by promoting homeland security.

Promote the State’s economic growth and enhance the quality of life of its communities through adoption of new technologies like broadband telecommunications and efficient renewable energy resources.

Provide customers with the opportunity to choose alternative electric, natural gas, telecommunications, and transportation providers.

Provide regulatory oversight in a prudent and efficient manner while implementing legislative and constitutional requirements. “

As a citizen, I ask that you allow innovation, follow the definition of net metering existing in other states and do what’s appropriate for all of Michigan and its citizens as well as for the country and the planet.

Sincerely,

Mel L Barclay

September 10, 2007
From: Joshua S. Barclay
Owner of 3.2 kW tracking PV array in Whitmore Lake, Michigan

Dear Ms. Baldwin and the 10kw and under Workgroup:

This workgroup was established by the MPSC to develop "a simplified approach for net metering for inverter based systems smaller than 10 kW." Sadly, it seems that this focus has been entirely lost in the process. Though the staff's first draft proposal adroitly addressed the Commission's directive, this proposed compromise with the utilities neither simplifies the approach, nor creates net metering.

From the US Department Of Energy website (emphasis mine)

> Net metering programs serve as an important *incentive* for consumer investment in renewable energy generation. Net metering enables customers to use their own generation to offset their consumption over a billing period *by allowing their electric meters to turn backwards* when they generate electricity in excess of the their demand. This offset means that customers receive retail prices for the excess electricity they generate. *Without net metering, a second meter is usually installed to measure the electricity that flows back to the provider, with the provider purchasing the power at a rate much lower than the retail rate.* [1]

It's disingenuous to continue to call what is being proposed "net metering." According to the DOE quote above, the current proposal is the exact opposite of net metering.

As the DOE states, the purpose of offering net metering is as an *incentive*. Net metering policy should *encourage* homeowners, business owners, farmers and just about everyone else to invest their *own money* in renewable technologies and connect them to the grid. We want small renewable generators to grid-intertie because they will bolster the grid, provide production during peak demand times, reduce line loss, foil terrorists by distributing production, and inject money into the local economy instead of sending it out of state where 90% of our energy dollars currently go.

A true net metering policy will save Michigan money in the long run. It is extremely likely that the costs of CO2 emitting technologies are going to increase, by treaty, legislation or market forces. Why would we want to tie Michigan down to an increasingly expensive fuel stock? True net metering would inexpensively encourage faster growth of the renewable

[1] http://www.eere.energy.gov/greenpower/markets/netmetering.shtml

energy industry in our state, and will save Michigan money when CO2 emissions become heavily tariffed in the future.

I believe the current proposal incorrectly refers in the first line to "a single bi-directional meter" which measures two quantities. A meter, by definition, measures a quantity, so if a device measures two quantities like inflow and outflow, it is actually a two-meter system, even if housed in one outer casing with one readout display.

Until DTE forced my family to install such a two-meter system this August, we had an actual single bi-directional electromechanical kWh meter, that ran forward when we drew energy off the grid, and backwards when we sent energy on to the grid. It worked great, and only had one number to be read. This simple, low-cost, pre-existing meter is all that is needed for true net metering. No new meters need to be purchased nor installed, and the paperwork could be literally reduced to one yearly bill.

If simplicity is the goal, true net metering will achieve it. The following would be our family's yearly bill with true net metering, based on our solar array's net excess generation of 510 kWh for the year, assuming a $7/month utility connection fee and retail buyback of our yearly net excess generation (NEG).

2006-2007 Detail Charges

For Service at 4445 Valentine Rd, Whitmore Lake, MI
Net Metering Residential Electric Service

Current Charges and Credits

Net Metering Credits	510 kWh	@	.08815	($44.96)
Grid access fee	12 mos.	@	$7/month	$84.00
Total Current Charges				**$39.04**

Service Period	Sep 1, 2006 – Aug 31, 2007
Meter Reading	48749 Actual – 48239 Actual
KWH Sent to Grid (yearly net excess generation)	510 kWh

Your next scheduled meter read date is on or around AUG 31, 2008.

The above bill could be all the paperwork for an entire year. Note, that even with our exceptional efficiency (we consume half that of a typical home[2]), and our $40,000 PV tracking array, *the largest tracking array in all of Michigan*, under a true net metering

[2] http://www.eere.energy.gov/states/us_energy_statistics.cfm#consumption

program, we would still owe a small amount to the utility. I believe most customer-generators are willing to pay a reasonable price for grid interconnection.

By contrast, given the monthly generation data of our PV array, in combination with our monthly single-meter readings, we can calculate what my family's electric bill would be under the current proposal. Here is the monthly data for our PV array's first year of electricity production, and our home's electricity use:

Barclay PV 2006-2007 Generation, Home Energy Demand, and Grid-Flow[3]

Month	Energy Generated by PV Array (kWh)	Energy Used by Home (kWh)	Net Energy sent to grid (kWh)	Net Energy drawn from grid (kWh)
September-06	292	153	139	
October-06	362	354	8	
November-06	236	503		267
December-06	212	605		393
January-07	191	625		434
February-07	391	748		357
March-07	528	314	214	
April-07	517	430	87	
May-07	698	215	483	
June-07	753	229	524	
July-07	691	382	309	
August-07	561	364	197	
Totals	**5433**	**4923**	**510 kWh yearly net excess generation**	

For the year we generated a total of 5433 kWh but our home used only 4923 kWh, so we thus sent a net 510 kWh to the grid. We have *the largest tracking array in Michigan*, and exceptionally low electricity use, so I predict most systems won't have any NEG. It is worth noting here that our greatest outflow to the grid occurred during the hot summer

[3] The PV generation data is for the exact month indicated, but the "Energy used by Home" and the "Net energy sent/drawn from grid" data may be slightly offset in time from the generation data, since we used the closest DTE meter readings to that month. For example, the "July " home use and sent/drawn values were based on DTE meter readings from July 8, 2007 to August 8, 2007. Our complete 10 MB data set including total energy produced, array AC power, grid voltage, AC current out of the inverter, DC array voltage, module temperature, ambient temperature and irradiance for every 5 minute interval from September 2006 to September 2007, is available upon request . Email JoshuaBarclay(at)earthlink.net to request the data set, or a subset.

months when the demand on the grid is highest, and utilities must purchase expensive electricity from out of state.

With our estimate that three quarters of our electric energy use occurs after dark, and the current proposal provisions assuming a $7/month grid connection fee, ***our annual electric bill under this proposal would be close to $300***. Before we even bought our $40,000 array, our annual electric bill was only about $360. I welcome anyone to try to show my estimated bill under this proposal to be incorrect.

With "encouragement" like this to grid-intertie, most people will buy a battery-based system instead.

While New Jersey and Wisconsin rapidly distribute and diversify their grid infrastructure with true net metering as well as other clean energy incentives, we in Michigan lag far behind and could soon be faced with even fewer choices: a major utility is threatening to hold generation capacity hostage unless Michigan gives up its electricity provider choice laws and commits to dirty coal. Especially under these circumstances, it's simply insane to discourage people from investing their own private money to contribute energy to the grid and provide for Michigan's increasing energy needs with renewable technologies.

In closing, I am most saddened by the disappointing lack of vision in this proposal. In fifty years, will our grandchildren be telling stories of how way back in 2007 we reduced the cost of electricity by a tenth of a cent per kilowatthour? or will they instead tell the inspiring tale of how the grid-tied solar arrays and windmills of their grandfathers and grandmothers (which will likely still be making clean energy then) spurred Michigan's economic rebirth; how investing our energy dollars in ourselves and our own ingenuity saved us billions in the long term, gave us energy independence, gave us an inexhaustible source of energy, saved our environment and health, and made Michigan the renewable energy manufacturing capital of the Midwest.

If we have the vision, we will make it happen.

Respectfully submitted,

Joshua Barclay
4445 Valentine Rd
Whitmore Lake, MI 48189

Baldwin, Julie K (DLEG)

From: Tony D'Alecy [tony@goforsolar.com]
Sent: Monday, September 10, 2007 9:21 AM
To: Baldwin, Julie K (DLEG)
Subject: Public Comment on Net Metering <10k

Dear Julie Baldwin,

The biggest barrier to customer investment in renewable energy right now is cost and access to the grid. Given the current economic state of the STATE of Michigan, state "incentives" are unlikely. That being said, we must have TRUE NET METERING. Not some half baked version that gives the customer a fraction of the price they paid for the same kilowatt purchased from the grid.

The utilities have a monopoly right now, and we the people of the State of Michigan after investing $15 to $20,000 in a PV system should be paid for our tiny little overproduction when applicable. This is generally during the middle of the day when they are at work, (if they still have a job). And the energy they are providing the grid is only helping the pathetic utilities get through the most difficult part of the load day.

I implore your and Tom Stanton to fight for a SINGLE bi-directional meter that will make it simple to be grid tied, and provide the maximum benefit for all parties, even the narrow minded, short-term thinking Utilities. (DTE & Consumers).

Take a look at the states leading the way right now in renewable energy right now, NJ, WI, TX, PA.. Michigan should be in this group.

Thank you for all you are doing,

Best Regards,

Tony D'Alecy
Renewable Energy Solutions, LLC
www.GoforSolar.com

"Energy Choices for Michigan"

Baldwin, Julie K (DLEG)

From: Sarver, John H (DLEG)
Sent: Tuesday, August 14, 2007 9:20 AM
To: Baldwin, Julie K (DLEG); 'Thomas J Lavere'; 'freidlinek@dteenergy.com'; 'David G Nick'; 'alvarado@GLREA.ORG'
Cc: Proudfoot, Paul A (DLEG); Poli, Patricia M (DLEG); Stanton, Thomas S (DLEG)
Subject: RE: New Simplified Net Metering Draft Proposal - Early Comments Requested

Hi Julie…..I like what I see, but some issues are not addressed – Who pays for the meter? Is testing and inspection necessary and who pays? Is the interconnection fee still $100? Are UL listed systems automatically accepted? Will there be a simpler application? ….John

-----Original Message-----
From: Baldwin, Julie K (DLEG)
Sent: Friday, August 10, 2007 4:05 PM
To: 'Thomas J Lavere'; 'freidlinek@dteenergy.com'; 'David G Nick'; Sarver, John H (DLEG); 'alvarado@GLREA.ORG'
Cc: Proudfoot, Paul A (DLEG); Poli, Patricia M (DLEG); Stanton, Thomas S (DLEG)
Subject: New Simplified Net Metering Draft Proposal - Early Comments Requested

We have updated our net metering proposal for the 10 kW and under inverter based group of generators. Before sending this out to the entire workgroup, we are asking for your comments on the proposal. Please keep in mind that this will only apply to the really small inverter-based projects. (Most of Consumers Energy's net metering customers are around 2 kW.)

The Commission has directed us to simplify the approach to net metering for this type of customer. We feel this proposal is much simpler than the customer site usage method currently used by Consumers Energy and DTE Energy.

We appreciate all of the work Consumers Energy and DTE Energy have put into net metering issues during the U-15113 process.

We have chosen a small group of net metering workgroup members to evaluate our proposal and provide comments. Would you please email comments by Wednesday, August 22? (Please "Reply to All" on this email so Paul, Tom, Pat and I all get copies of your comments. Thank you!

Julie Baldwin, Staff Engineer
Electric Operations Section
Operations & Wholesale Markets Division
Michigan Public Service Commission
(517) 241-6115
<< File: Staff Net Metering August 2007 proposal Final Version.doc >>

Baldwin, Julie K (DLEG)

From: EricLipson@yahoo.com
Sent: Sunday, September 09, 2007 9:44 PM
To: Baldwin, Julie K (DLEG)
Subject: Net Metering

Dear MPSC,
I was extremely disappointed in the latest proposed MPSC rules for "net" metering. My understanding of how net metering was meant to work and how it works in other states is that small generators are given retail credit for what they generate. The proposed "two meter" system, charging small generators retail and buying power back from them only at wholesale is not net metering. It also reduces the incentive to grid-tie those installations. This proposal is counter-productive to the production of alternative energy. This proposal is counter-productive to creating a more robust, distributed grid. No wonder Michign is are falling so far behind in the production of alternative energy. The repeated pattern of the MPSC to cater to the big energy companies is going to destroy alternative energy production in Michigan. Is this your real goal? All generators should be on a level playing field. The answer is so simple: let one meter run forward or backward. Read it once a year. The current proposal is just another boost to big monopoly electrical generators and another kick in the face to the small, alternative generators whom we are supposedly trying to encourage.
Eric Lipson
1318 Rosewood Street
Ann Arbor, MI 48104
(734) 761-2305

Baldwin, Julie K (DLEG)

From: gaia kile [gaia.kile@gmail.com]
Sent: Tuesday, September 11, 2007 10:04 AM
To: Baldwin, Julie K (DLEG)
Subject: Public Comments: Michigan Public Service Commission ruling regarding grid tie-in net metering.

Comments to the Michigan Public Service Commission regarding the final Michigan Public Service Commission ruling regarding grid tie-in net metering.

Dear Ms. Baldwin,

I have been following with some interest the Michigan Public Service Commission's efforts to develop a net metering policy. I have a set of photovoltaic panels that are siting in my garage while I wait for the outcome of this important development. My panels are not on my roof because the battery system I originally had malfunctioned. As you probably know self contained solar systems are hard to manage. I am deciding between revamping the battery system or purchasing a grid tie-in inverter. While I would prefer the later, a key question is what will the utilities buy my electricity for. If they are only willing to pay half of what they charge, I will be inclined to work with batteries. Micro systems like mine produce electricity during periods of peek demand, this makes it more valuable. Grid tie in systems are the way of the future. You have the power to help them come to Michigan. Please support a fair price for electricity, equal in and out.

Thank you for the consideration of my comments

Sincerely,

Gaia Kile

Baldwin, Julie K (DLEG)

From: Jennifer Alvarado [jenalv13@yahoo.com]
Sent: Thursday, August 23, 2007 4:16 PM
To: Baldwin, Julie K (DLEG)
Subject: Re: FW: New Simplified Net Metering Draft Proposal - Early Comments Requested

Julie-

I have reviewed the net metering document that you sent out. GLREA is very supportive of the net metering program as proposed in the bulleted items. This document does not cover the interconnection costs for customers, though. GLREA is very interested in reviewing any progress being made on decreasing the interconnection costs for net metering customers. Thank you for all your efforts.

Jennifer Alvarado
Great Lakes Renewable Energy Association
Executive Director
517-646-6269
517-646-8584 fax
257 S. Bridge St
PO Box 346
Dimondale MI 48821
www.glrea.org

Baldwin, Julie K (DLEG)

From: garth [winerytech@chartermi.net]
Sent: Thursday, September 06, 2007 10:43 AM
To: Baldwin, Julie K (DLEG)
Subject: Re: MPSC Net Metering Proposal August 2007

Hi Julie,,,,Even though I believe a "Green kwH" is worth more than a "Black kwH",, I think that this proposal will work. It will also allow more small home based units to be employed. As this technology advances, the prices will come down, and the power companies will be less resistant to all inclusive home based plug-n-play units.

Garth, Michigan Wind Power

> ----- Original Message -----
> **From:** Baldwin, Julie K (DLEG)
> **To:** MPSC-10KWANDUNDER@LISTSERV.MICHIGAN.GOV
> **Sent:** Tuesday, August 28, 2007 4:09 PM
> **Subject:** MPSC Net Metering Proposal August 2007
>
> Staff has developed a new net metering program design proposal for inverter based projects sized 10 kW and less. The proposal is attached to this email message and posted on the 10 kW and Under workgroup webpage (after the 6 pm website cache update):
>
> http://www.michigan.gov/mpsc/0,1607,7-159-16377_47107_47112---,00.html
>
> If you would like to provide comments, please send them to me no later than Monday, September 10. Thank you.
>
> Julie Baldwin, Staff Engineer
> Electric Operations Section
> Operations & Wholesale Markets Division
> Michigan Public Service Commission
> (517) 241-6115
> <<Staff Net Metering August 2007 proposal.pdf>>
>
> ---
>
> You are subscribed to the MPSC-10KWANDUNDER email subscription list.
>
> To leave the Listserv, send an e-mail to: listserv@listserv.michigan.gov with no subject, and the following text in the body of the message (exclude all other text such as signatures, etc.): signoff MPSC-10KWANDUNDER
>
> ---

Baldwin, Julie K (DLEG)

From: Michael Flynn [electricmic@gmail.com]
Sent: Sunday, September 09, 2007 3:32 PM
To: Baldwin, Julie K (DLEG)
Cc: Flynn, me
Subject: REAL Net Metering

Dear Julie,
I sent this to Governor Granholm and both of my state representatives. This is a pivotal moment for renewable energy which has been stumbling along without realizing its potential since the 1970's. Please see how the federal government defines the benefits of REAL net metering at their site: http://www.eere.energy.gov/greenpower/markets/netmetering.shtml
Please do the right thing this month.
Thank you,
Michael Flynn

My letter to my representatives:
Please help steer the "MPSC Net metering design proposal for inverter based systems 10 kw and less August 2007" to encourage small scale, distributed, renewable electricity generation. The MPSC is catering to the utilities and not looking out for the public good. The plan is called "Net Metering" but is not "Net Metering" at all. The Michigan Public Service Commision proposes that utilities charge full price for electricity that flows into my house from the grid and credit me a fraction of that value for the clean energy I generate using solar panels. That will make the installation solar panels a foolish investment because it would never pay for itself in energy savings! The grid is a public resource it should be used for the public good. Real Net Metering could be written out of Michigan Law this month and needs support urgently! The MPSC's short sighted plan will stifle the development of distributed renewable energy production that would reduce carbon emissions and make our grid more robust and more efficient. Their plan would also inhibit our new energy economy that would renew Michigan's manufacturing industries through production and sales of solar panels and wind machines. The contact person at the MPSC is Julie Baldwin: baldwinj2@michigan.gov Thanks, Michael Flynn

Baldwin, Julie K (DLEG)

From: Michael Flynn [electricmic@gmail.com]
Sent: Monday, September 10, 2007 10:00 AM
To: Baldwin, Julie K (DLEG)
Subject: Question about 10kw & under proposal

See the bottom of your 4th bullet point and the entire 5th bullet point. I think this says that the utility can recover their net metering payments and their lost profit by adding a charge to every utility customer so in effect they are getting this green energy for free and then demanding a subsidy to maintain their profit on its "sale"! Who wrote this law? Someone finally found a way to make solar cheaper than coal!

The MPSC mustn't guarantee that net metering will not decrease DTE profit. The utility's business model should begin to move toward being the grid maintainer instead of the energy provider.

I worry that the MPSC is not aggressively defending the people's right to freely use the grid while DTE is aggressively exploiting every aspect of this legislation.

Michael Flynn

Baldwin, Julie K (DLEG)

From: Michael Flynn [electricmic@gmail.com]
Sent: Monday, September 10, 2007 10:16 AM
To: Baldwin, Julie K (DLEG)
Subject: Proposal10 kw and less

Julie,
In the first bullet point the use of the phrase "single bidirectional meter" is inaccurately applied to the equipment being described. Net metering is based on a single, simple, standard meter that spins forward and back at the same rate. The meter that DTE has developed is actually two meters in a conjoined case. It is designed to foil true net metering by allowing the meter to buy and sell at different rates! Please don't let DTE cloak their short sighted profiteering in the lexicon of real net metering. I'm worried that my part-time efforts to steer your commitee are no match for DTE's full-time bankers' law team. I hope you will relay my concern to the commitee and encourage them to get their guard up and stand up for the people.

Michael Flynn

Baldwin, Julie K (DLEG)

From: Mark [markeritz@sbcglobal.net]
Sent: Monday, September 10, 2007 3:00 PM
To: Baldwin, Julie K (DLEG)
Subject: RE: MPSC Net Metering Proposal August 2007

Julie –

I am a homeowner with a grid interactive photovoltaic electric system, and therefore a prime candidate for net metering. Net metering should be established with rates that provide as much economic incentive as possible for customers to make personal investments in renewable energy. Regarding this draft proposal, I support the customer receiving a credit at the end of each year for the net excess generation. I believe the "minimum bill amount" for each utility should be as low as possible and I would like to know more about how the Commission intends to establish such an amount.

I note that Detroit Edison has a GreenCurrents program whereby customers may elect to pay a premium to receive electricity generated from renewable sources. I believe this recognition that renewable energy is more valuable should be incorporated into net metering. For example, if both inflow and outflow data is recorded and a customer's net excess generation is from a renewable energy source, the customer should be credited with the same amount that the utility is charging its customers for renewable energy (i.e. $0.02 per kilowatt-hour in the case of Detroit Edison's GreenCurrents) in addition to the normal retail energy price.

Mark Ritz

From: Baldwin, Julie K (DLEG) [mailto:baldwinj2@MICHIGAN.GOV]
Sent: Tuesday, August 28, 2007 4:10 PM
To: MPSC-10KWANDUNDER@LISTSERV.MICHIGAN.GOV
Subject: MPSC Net Metering Proposal August 2007

Staff has developed a new net metering program design proposal for inverter based projects sized 10 kW and less. The proposal is attached to this email message and posted on the 10 kW and Under workgroup webpage (after the 6 pm website cache update):

http://www.michigan.gov/mpsc/0,1607,7-159-16377_47107_47112---,00.html

If you would like to provide comments, please send them to me no later than Monday, September 10. Thank you.

Julie Baldwin, Staff Engineer
Electric Operations Section
Operations & Wholesale Markets Division
Michigan Public Service Commission
(517) 241-6115
<<Staff Net Metering August 2007 proposal.pdf>>

Baldwin, Julie K (DLEG)

From: 2bekind2@earthlink.net
Sent: Saturday, September 08, 2007 7:21 PM
To: Baldwin, Julie K (DLEG)
Subject: Get Real Net Metering

Dear Ms. Baldwin:
Please accept my apologies, but I was mistaken on the exact purpose of this email. I have now corrected my posting and would deeply appreciate it if you would update my first posting, dated 8/5/07, by replacing it with this one. Thank you so much!

Please, help make it even possible to avoid future catastrophe by standing up against this obscene abuse of power from Michigan's major utility companies. Say 'No' to this oxymoron of a proposal entitled "Net Metering." We need Real Net Metering (which allows a single meter to run forwards and backwards) in order to even begin to move away from the forms of energy that are destroying our entire planet more every single day. The proposals backed by Michigan's major utility companies show no concern at all for environmental issues, but appear to place all of their efforts towards continuing to earn their already large profits.

How can this kind of thinking leave anything at all intact for our children's children and so on. Please, it is up to the Michigan Public Service Commission and this working group to curb this self-destructive, greed-motivated behavior. This is one of the very few governmental entities that can help to change the future from a bleak, hot-house world outlook to one of a clean energy, planet-saving revolution. The old ways will crumble...the only question is, where will Michigan be positioned in the new energy economy?

Sincerely,

L. Paxton
Ann Arbor, Michigan

Baldwin, Julie K (DLEG)

From: Brian Mroczkowski [b12hh@yahoo.com]
Sent: Monday, September 10, 2007 11:12 AM
To: Baldwin, Julie K (DLEG)
Subject: real net metering now, please

real net metering now, please
sincerely
brian mroczkowski

MPSC Staff Net Metering Program Design Proposal for Inverter Based Systems 10 kW and Less August 2007

- **Use a single bi-directional meter to measure and record the following quantities: (1) electricity delivered from the utility (kWh); and (2) electricity delivered to the grid by the customer (kWh).** ***This should be the only information needed by the utility for customer billing.***
- **Bill the customer based on their rate schedule for electricity delivered from the utility.** This part of the bill will not be based on "net" energy usage. Instead, the customer will be billed in the identical manner as a non-net-metering customer, for all electricity delivered by the utility. ***Acceptable.***
- **Provide a net metering credit** on the bill, equal to the utility's retail generation rate (Retail Rate less distribution charge) for electricity, including all power supply charges and surcharges. Staff expects this will be a credit expressed as a dollar amount for the month. The bill should show kWh delivered, monthly power supply charge credit per kWh, and total $ amount. ***This does not take into account the fact that the PV generation delivered to the utility would likely be used in the immediate area by a nearby customer whose meter would register the usage. That customer would pay the retail rate for receiving the energy. This is energy the utility did not actually generate and which they did not deliver through the bulk of the utility system with its inherent losses. Further, PV generation isat its highest during the mid part of the day when utilities pay high costs for purchased generation and when energy transmission charges are the highest.***
- **Apply the net metering credit toward the customer's bill total.** Net metering credit can be applied to bring the bill down as low as the minimum bill. Any excess credit will be carried over month to month. ***A reasonable approach.***

  At the end of each year, the utility would either: (1) give the customer a check for the amount of any unused net metering credits; or (2) continue to allow net metering credits to accumulate. MPSC Staff proposes checks might not be written for any amount less than $50, for example. ***Since the main goal is to have the customer generator not generally produce more energy than is actually needed by the customer load OVER THE YEARLY PERIOD, a reasonable approach to controlling that is to limit the amount of net metering credits returned to the customer at the end of the year. Item (1) above could have a cop on it, say $50 or $100. That would discourage customers from installing huge PV systems that would become net producers that could overload utility power circuits and be difficult for the utility to control (a TECHNICAL problem, not an administrative one).***

  The utility may treat net metering credits as a recoverable power supply cost.
- The utility may choose to calculate the distribution and surcharges the customer would have paid, based on their previous year's usage, absent net metering, but this is done as part of utility accounting for the purpose of making a request to the Commission for future cost recovery and not shown on the customer's bill. ***The only way to get meaningful numbers for this is to use the "3 meter " approach now used by the utilities. But installing 3 meters for a simple PV system is a financial burden for customers and the data collection and processing of the extra data places additional costs on the utility (which are passed on to the customer) for determining the "actual" customer load. Besides, what is actually produced by the customer and utilized within his own facility should be of no interest to the utility.***

Customer bills will have a normal billing section for the electricity delivered by the utility and then the following extra lines:

- Carryover net metering credit from past months (in $). ***OK.***
- Current month net metering credit based on current month electricity deliveries to the utility (in $). This is the kWh of electricity generated by the customer and delivered to the utility, multiplied by the total power supply charges. (Staff prefers this line item will also indicate the number of kWh and amount of credit per kWh. The per kWh credit is expected to vary each month, along with changes in the utility's PSCR factor. ***OK, but should be a total net amount, not just based on the generation cost.***
- Total net metering credit applied to this month's bill. ***OK.***
- Net metering credit carried over to the next month. ***OK***
- Minimum bill/monthly customer charge ***OK***
- Total bill due ***OK***

Additional thoughts:

1) ***This proposal is for PV systems rated at "10 kW and less". There are also an MPSC proposal for "30 kW and higher". What happens to the PV system that falls in the middle range of > 10 kW and < 30 kW?***
2) ***The state Energy Office administers a program that pays up to $50,000 for 10 kW or higher PV systems installed on public and educational facilities. When designing a PV system, there must be a suitable electrical match between the strings of PV modules and the chosen inverter. Sometimes a "nominal" 10 kW PV system can't be designed to be "10 kW or less", but may actually be slightly higher, perhaps 10.4 kW or so, so that the voltages and currents are properly matched to the inverter's requirements. That falls beyond the "10 kW or less" requirement. How is this anomaly handled?***

Robert G. Pratt, P.E., President, RGP Pro, Inc.

Baldwin, Julie K (DLEG)

From: Randy Smith [randy@trashbuddy.com]
Sent: Tuesday, September 04, 2007 11:46 AM
To: Baldwin, Julie K (DLEG)
Subject: RE: Net Metering - comments

Julie,
Full retail or greater. I believe policy for small scale renewable energy systems should be encouraged to be incentive based. They will never compete or interfere with "100 megawatt" coal power plants. Policy should encourage renewable power sources, regulation and implementation should be simple to navigate for the small business or residential system.

Randy Smith

From: Baldwin, Julie K (DLEG) [mailto:baldwinj2@michigan.gov]
Sent: Friday, August 31, 2007 8:25 AM
To: Randy Smith
Cc: Stanton, Thomas S (DLEG)
Subject: RE: Net Metering - comments

Randy -
Thank you for your comments. I would like to clarify your comment.

Provide a net metering credit equal to the utilities generation rate *or greater* ~~(retail rate less distribution charge)~~…

Does your above comment mean that you are recommending full retail (generation and distribution) or greater or just the generation rate or greater? (DTE's retail generation rate is about 5.8 cents per kWh.)

I am opting to not comment on your questions regarding the value of renewable energy in this email because we'll most likely have a staff position on this concept in the report due at the end of the month.

Julie Baldwin, Staff Engineer
Electric Operations Section
Operations & Wholesale Markets Division
Michigan Public Service Commission
(517) 241-6115

> -----Original Message-----
> **From:** Randy Smith [mailto:Randy@trashbuddy.com]
> **Sent:** Wednesday, August 29, 2007 3:28 PM
> **To:** Baldwin, Julie K (DLEG)
> **Subject:** Net Metering - comments
>
> Hi Julie:
>
> Thanks for keeping everyone informed – I like most of the MPSC Net Metering recommendations.
> Is there anyway we can get a way from encouraging RE as a "lesser energy" provider and begin to put a preference for clean energy from renewable sources?
> I believe we need to change item 3 from the list: ..Provide a net metering credit equal to the utilities generation rate *or greater* ~~(retail rate less distribution charge)~~…
> In essence allowing the public and private utilities to encourage renewable energy at par or greater rates

like we have seen in other States and Countries.
Policy needs to allow for Michigan utilities to catch-up to the rest of the world where utilities are paying premiums to dispersed renewable energy electricity producers. This will better serve their customers, reduce foreign oil dependence, reduce financing and meet future growth in customer base…in addition to all the reduction in pollution, mining catastrophes, and health consequences of fossil and nuclear fuels.
Sincerely,
Randy Smith
Renewable Services, LLC

Baldwin, Julie K (DLEG)

From: Christina A. Snyder [CASnyder@ic.org]
Sent: Monday, September 10, 2007 2:23 PM
To: Baldwin, Julie K (DLEG)
Subject: "Net-metering" of <10kw renewable energy systems

Julie, thanks for the work you are doing on behalf of the citizen's of MI,

I wish to make a few comments on the latest "net-metering" proposal:

1. This is still not "net-metering" where the rate at which you are billed is the same as what you are paid when you contribute your costly clean energy. I know the utilities have drawn their line in the sand by insisting that they be allowed to charge transmission and distribution costs, and MPSC may never have the power to over-ride the utilities on this, but if we are never going to get true net-metering out of the utilities, than I don't want them to be able to green-wash their actions by claiming that they have net-metered billing programs. The utilities are totalling up every cost they can think of to soak citizen's with RE systems for under the heading of T&D costs, while at the same time denying all of the costs which net-metering customers incur but can't bill the utilities for, and denying the large benefits that defer some of the utilities costs. What about our installation and maintenance costs? what about the effects of peak shaving, and distributed energy on reducing the utilities costs and helping to stablize the grid with decentralized energy? I'd really like to see some impartial third party studies done on what exactly the costs and benefits of decentralized RE systems are to the utilities, to the state, and to other consumers - I'd bet that the scales are much closer to even or that RE system owners are delivering far more benefits than they are costing the infrastructure. I will never stop lobbying for this to be recognized, so the MPSC and the utilities better be ready for the long haul in hashing out the regulatory environment we must cope with.

2. A single bidirectional meter is an improvement over three, as long as it costs less than two regular meters do - the big problem with everything proposed so far, is that no one is telling us how much it is going to cost us to jump through all the utility's hoops just to have the priviledge of sharing our excess with our neighbors when we have it to give. Also, what is the paperwork /red tape burden going to be like in order to comply? I still haven't heard that the utilities have come up with a simplified application for interconnection suitable to systems smaller than 10 kw. The last we saw was a 50 page book asking questions having nothing to do with RE systems that was probably lifted from applications for industrial scale producers. We took that application to electricians, electrical engineers who used to work for the utility in question, and staff of the MPSC, and never found some answers to what was wanted by some of the questions. A homeowner should not have to fill out more than the front and back of a page to get interconnected, and there should be no spurious meters, exorbitant fees, or nit-picking inspections to deal with, or people will end up choosing to either avoid the expense and hassle of RE to begin with, or choose to implement dangerous battery-based, off-grid systems.

3. I do want something to be decided and implemented ASAP that will allow people who are currently in limbo with RE systems that are interconnected to start getting paid for what they are contributing. I have very little faith in the utility companies efforts to change there billing systems to make sure that people get their credits and eventual payments for RE energy put on the grid. From what we've seen, the billing systems are fossilized in a collection of debts owed mode only, and making provisions for credits or payments is a non-priority. How will MPSC make sure the utilities follow through? We've seen the utilities fall behind in credits on the scope of several years before MPSC is successful in dragging something out of them - this is also not something homeowners should have to deal with, just because they are more interested in doing the right thing than the utilities are.

Thanks again,
Christina

--

Christina A. Snyder
casnyder@ic.org
voice: 734-428-9249

Memorandum

To: Julie Baldwin, MPSC Staff

From: James A. Ault, Michigan Electric & Gas Association (on behalf of indicated electric utilities)

Date: September 10, 2007

Re: Joint Comments on Staff Proposal for Discussion – Net Metering

---

I. Introduction

These joint comments are provided on behalf of the following electric utilities: Consumers Energy Company, The Detroit Edison Company, Alpena Power Company, Edison Sault Electric Company, Indiana Michigan Power Company, Upper Peninsula Power Company, We Energies, Wisconsin Public Service Corporation, Xcel Energy, and members of the Michigan Electric Cooperative Association. These comments address the MPSC Staff Net Metering Program Design Proposal for Inverter Based Systems 10 kW and Less – August 2007 (Staff Proposal). These comments are generally focused on the proposal elements without revisiting in detail the position of utilities stated previously in this collaborative regarding continuation of the existing agreement through at least 2009 and the merits of the various configurations for net metering now in place. See March 29, 2005 order in MPSC Case No. U-14346 and related tariffs filed to comply with the order. Staff is already familiar with these arrangements and the differing positions regarding net metering independent of the approved agreement and utilities do not waive any positions previously or separately stated. Clearly the proposal revives some of the fundamental policy issues about the degree of support or subsidy to be allowed for customers with small electric generators.

Another question is the degree to which the Staff proposal would replace all elements of the existing program. Matters such as restricting size to the customer's anticipated load and capping participation at some level are not mentioned but utilities would generally favor the retention of such program elements.

These comments will focus on the elements in the sequence contained in the Staff Proposal, with comments on some of the significant new (or even familiar) questions raised. Obviously, if policy issues regarding net metering were resolved in a manner consistent with this design proposal, its elements could be made to work for most situations. We appreciate the opportunity to provide input in this process.

II. Industry Comments

1. Single bi-directional meter: This type of meter is available in the market as a non-standard meter or has already been installed by some companies for net metering customers. For many utilities this would require new meter purchase and installation, or, alternatively the function could be performed using two standard

energy meters (in and out flow). The design proposal should address cost recovery for the meters – is this socialized or covered by the net metering customer? Michigan's two largest electric utilities and some others are actively considering "advanced metering infrastructure" (AMI) programs that would replace traditional energy meters with capability as described in this program element plus measurement of demand and automated meter reading (AMR). The demand measurement capability of AMI could allow other options for measuring and recovering demand related costs. Net metering customers may be placed in front of the line for AMI as it is introduced, provided there is an acceptable program design.

Detroit Edison and We Energies are concerned with this program design for customers served at primary voltages or served on a base rate that contains demand charges.

Detroit Edison proposes that its current "three meter" arrangement continue as the default method for net metering. Qualifying customers (unit size + secondary voltage + no demand components in rates) would have an option to select the bi-directional single meter subject to an acceptable program design regarding recovery of delivery, export and storage services.

2. Billing for delivered electricity: This element allows the customer to avoid all charges associated with the reduced monthly takes from the utility as a result of customer generation. From a mechanical billing standpoint, this can be done but for those utilities seeking recovery of distribution-related costs that would otherwise be recovered from that customer, it reopens the "subsidy" debate.

Detroit Edison is proposing an option that would bill based on energy delivered and credit the customer for energy received subject to an additional fixed charge for delivery, export and storage services based on monthly delivery service rates and surcharges times 1/12 of the customer's usage for the year prior to installation of the customer's generator.

3. Net metering credit for customer deliveries to utility in $/kWh: In combination with avoided delivery charges on the site use generated by the customer, this increases the "subsidy" for net metering. It is also a retail rate paid for wholesale power although this concept resembles what some utilities have implemented. The cooperatives provide a credit for deliveries by the customers to the cooperatives at the "wholesale cost of energy" adjusted for line losses. Is this intended to be the same thing? Again, as a matter of billing mechanics, the credit can be accomplished but the policy debate may be renewed (subject to other comments below). If AMI is introduced, would there be an opportunity to introduce a time measurement to value the customer provided generation?

4. Apply net metering credit to monthly bill/carry forwards: See comments on other elements – as the customer generation is used to offset the recovery of distribution-related costs, some utility opposition is anticipated due to the lost revenue. Carry forward in dollars and the possible non-recovery (Elements 6-7 below) increase the financial risk with significant participation in the program.

5. Annual payment for unused credits or optional carry forward: One issue raised by this element is the elimination of a way to recover some of the program costs, since the U-14346 program allowed the value of unused credits to go towards program costs (for those utilities electing such a design option). Some utilities are opposed to carry forward beyond the end of a year.

6. Net metering credits as recoverable power supply cost: This would be an improvement over the current program if allowable, since it reduces the utility subsidy. This will require consideration of the legal issues due to court decisions such as Attorney General v MPSC, 269 Mich App 473 (2006). In that decision, the Court of Appeals reversed the Commission's order approving a monthly charge of five cents per meter for all Consumers Energy electric customers to raise funds in support of a voluntary green energy program of the utility in which customers could elect to participate. The Court reasoned that Michigan regulatory law did not authorized the agency to approve charges on utility customers who did not participate in the voluntary green energy program, to support the program. In addition to the legal question this decision also indicates that the Attorney General may challenge the regulatory authority for subsidy programs.

7. Accounting calculation of lost revenue for future rate recovery: This section really emphasizes the change from the existing agreement in U-14346 which allows recovery of the distribution costs and surcharges (some utilities have elected not to seek such recovery for the small net metering programs). In effect this element is saying that the revenue will be "lost" for sure and maybe down the road at the MPSC discretion the lost revenue could be recovered (or more likely shifted to other customers not participating in net metering). The Staff is very familiar with the policy debate in this area and the position of the utilities in general.

8. Extra line items in net metering bills: The form and content of the billing could be affected by the number of customers who sign up for net metering because it may be unreasonably expensive to reprogram systems for relatively few customers, and to a point the bills could be done manually. This issue should be revisited when the more fundamental policy questions are resolved.

Baldwin, Julie K (DLEG)

From: Stephen T Hirsch [shirsch@cmsenergy.com]
Sent: Monday, September 10, 2007 5:38 PM
To: Baldwin, Julie K (DLEG)
Cc: jaault@voyager.net
Subject: Consumers Energy- Net Metering

Julie -

Following are a handful of comments from Consumers on the net metering proposal. These comments are a supplement to those provided by MEGA earlier today. Sorry this is coming so close to your deadline.

Steve Hirsch
Consumers Energy

The Company prefaces these comments to state that we are generally in agreement with the comments of the industry as articulated by MEGA on 9/10/07. Additionally, we are cognizant of, and would ask Staff to consider, recent legislation introduced into the Michigan House (HB 5121) in preparing its report for the Commission.

1. The Company agrees with the use of a single bidirectional meter as an option for small (under 10kW) customers on non-demand rates, provided the incremental meter/installation cost is born by the customer participating in the program, and that Item 2 (fixed distribution charge) is implemented. To the degree we are able to incorporate net metered customers into the early phase roll-out of an AMI program we will attempt to do so. Since these meters will be installed ultimately at all customer locations, at that time, the cost of the meter for the net metered customers may be reduced or eliminated, depending on how those costs are treated. We would also propose to offer the customer the option of installing a utility meter on the generator for a fee.
2. In accord with Item 1, the Company believes that a fixed distribution charge designed to recover our distribution infrastructure investment should be established and assessed all applicable net metering customers in order to avoid subsidizing these customers.
3. Our ability to accommodate the staff's proposal regarding bill format in unclear. With the impending launch of our new enterprise wide computer system (SAP) on 1/1/08, we are not in a position to know what and when modifications will be possible.
4. The Company agrees with the minimum end of year "payment" concept although we share the concern of the industry about valuation of that payment. Additionally, should tariffs change to include a customer charge/system access fee or other similar item, we would consider this the "minimum bill." We believe the "credit" on a monthly basis should be in the form of kWh, not dollars, and that customers be subject to the full value of any surcharges based on the entire amount of energy consumed on site (or a standardized estimate).
5. The Company agrees with the concept of treating net metering credits as a power supply cost, although we share the concern of the industry on the process for implementing this type of recovery mechanism.

MPSC Staff Net Metering Program Design Proposal for Inverter Based Systems 10 kW and Less August 2007

- **Use a single bi-directional meter to measure and record the following quantities: (1) electricity delivered from the utility (kWh); and (2) electricity delivered to the grid by the customer (kWh).**
  - **Detroit Edison's proposed optional provision:**
    - **Allows qualifying customer's to CHOOSE a single bidirectional meter at the interface.**
    - **Limits the availability to customers billed on a secondary service base rate that does not contain demand components. Detroit Edison would oppose the use of a single by-directional kWh meter for any net metering customer served at primary voltage or served on a base rate that contains demand based charges.**
    - **The 3 meter option is still available to the customer and would be the default choice.**
    - **The three meter option provides the customer with metered generation data the customer may use to market his Renewable Energy Certificates (RECs). This is a customer benefit we do not wish to preclude by stipulating a single bidirectional meter.**
    - **The three meter option provides the customer with an exact calculation of the savings received as a result of the renewable resource generation. This is a customer benefit we do not wish to preclude by stipulating a single bidirectional meter.**
    - **The three meter option allows verifiable data to support program cost recovery.**
    - **Current Advanced Metering Infrastructure (AMI) plans anticipate replacement of EVERY Detroit Edison customer's meter(s) with meter(s) capable of metering inflow and outflow in kWh and kW and employing Automated Meter Reading(AMR). Since the difference between the retail power supply credit provided for Net Excess Generation (NEG) returned to the site and the avoided energy cost is a recoverable quantity, kWh and kW data will be collected for inflow, outflow and generation if metered for all net metering customers. Net metering customers are among the first customers that will have meters replaced.**
- **Bill the customer based on their rate schedule for electricity delivered from the utility.** This part of the bill will not be based on "net" energy usage. Instead, the customer will be billed in the identical manner as a non-net-metering customer, for all electricity delivered by the utility.
  - **Detroit Edison's existing procedure bills the customer for all surcharges, Power Supply and Delivery charges on gross site use and provides full retail**

Power Supply and Power Supply Surcharge credits for ALL energy supplied by the customer's generation. Verifiable recoverable Delivery Surcharge credit and a program credit numerically equivalent to the Retail Delivery charges is also provided to the customer for energy produced and used in the current month even though no reduction in Detroit Edison's electric system delivery costs are attributable to the net metering customer.

- **Detroit Edison's proposed optional provision bills the customer for all Power Supply charges and Power Supply Surcharges on delivered power which some consider net site use. Full retail Power Supply and Power Supply Surcharge credits are provided for energy supplied by the customer's NEG returned to the site. No energy-based delivery charges are paid on energy used on-site or delivered by Detroit Edison to the customer. Instead a fixed charge for delivery, export and storage services provided by Detroit Edison is charged. The fixed charge is 1/12 of the power delivered by Detroit Edison to the customer's site over 12 months prior to installation of generation times the then current delivery rates and Delivery Surcharges in the customer's base rate.**

- **Provide a net metering credit** on the bill, equal to the utility's retail generation rate (Retail Rate less distribution charge) for electricity, including all power supply charges and surcharges. Staff expects this will be a credit expressed as a dollar amount for the month. The bill should show kWh delivered, monthly power supply charge credit per kWh, and total $ amount.

  - **If the customer is charged only for power delivered by Detroit Edison to the customer as indicated in the Staff's previous bullet, an additional credit for kWh delivered to the Detroit Edison electrical system could result in a zero bill. This is inequitable in combination with the prior bullet that already fails to charge delivery charges for on-site generation. Detroit Edison cannot support this outcome because there are clearly ongoing expenses incurred by the Company to serve net metering customers. Detroit Edison's existing and proposed optional provision both provide full retail Power Supply and Power Supply Surcharge credits for energy supplied by the customer's NEG returned to the site, which is reasonable and equitable.**

- **Apply the net metering credit toward the customer's bill total.** Net metering credit can be applied to bring the bill down as low as the minimum bill. Any excess credit will be carried over month to month. The utility will give the customer a check at the end of the year for any unused net metering credits. Net metering credits paid to customers can be treated as any other recoverable power supply cost.

  - **Detroit Edison cannot support this provision for a variety of reasons.**

  - **Power Supply Credits must not be used to offset Delivery charges. NEG does not even offset utility power supply costs on a real-time basis. Delivery costs are not reduced as a result of net metering customer generation. Delivery costs may even increase as the system must be designed larger than it would absent net metering to accommodate NEG. The net metering customer receives more value from the delivery system than a non-net metering customer as the additional services of export to the Detroit Edison electrical system and financial storage are provided without compensation.**

- **Detroit Edison's existing procedure and proposed optional provision allow the customer to select a 12-month period during which NEG will be carried over. Since the customer can choose the month to zero out the balance, it can be chosen to optimize NEG on-site use for any technology. Year-end payment based upon avoided cost will provide substantially less value to some technologies (with high NEG balances at year-end) than other technologies (that use NEG balances by year-end) that receive retail credit for a higher percentage of power produced.**
  - **The avoided cost value of any NEG balance at the end of that period is used to pay program costs. The Commission-approved consensus agreement speaks to these costs as follows:**

    "The foundation for this consensus agreement is that each Utility will be allowed to recover from its customers all costs associated with its net metering program.
    Three kinds of recoverable costs must be considered (eligible costs): program operating costs, transmission and distribution (T&D) costs attributable to the net metering customer, and the above-market costs, if any, of generation credits provided to net-metered customers." (Page 3 of Exhibit A to the 3/29/2005 Order, MPSC Case No. U-14346.)

    Given the ability of the customer to optimize NEG use, the avoided cost value of any NEG balance from properly sized units is unlikely to compensate the utility for even one of these types of costs.

  - **The 12 month NEG balance carryover, utility retention or payments for NEG and the requirement to use the value of NEG balances retained to pay program costs are also addressed in the Commission-approved consensus agreement as follows:**

    "NEG credits, if any, will be carried over from month to month, limited to a 12-billingmonth cycle. At the end of each 12-billing-month cycle, cumulative NEG credits, if any, will be retained by the Utility and the customer's credit reset to zero. A Utility may voluntarily propose a program where customers are awarded a cash payment for NEG. The value of cumulative NEG credits retained by the Utility will be used to offset costs associated with the Utility's operation of the net metering program". (Page 5 of Exhibit A to the 3/29/2005 Order, MPSC Case No. U-14346.)

    Given the high level of subsidy provided to net metering customers by the existing program, Detroit Edison cannot support a modification that increases the subsidy and simultaneously reduces the ability to recover the subsidies. With the implementation of AMI and AMR, Detroit Edison will have the ability to determine the exact avoided cost value of NEG. At that time, Detroit Edison would not

oppose a program where retail credit for NEG returned to the site is eliminated and customers are awarded a cash payment at hourly avoided cost for all NEG delivered to the system. This process would reduce or eliminate one of the recoverable subsidies identified in the Commission-approved consensus agreement. Specifically, "the above-market costs, if any, of generation credits provided to net-metered customers."

- **The Staff's proposal does not state if the payment for NEG balance should be calculated at utility avoided cost or utility retail sales value. Due to rate structures that charge different rates for different levels of use, a retail sales price-based payment would be problematic. As noted above, a year-end payment based upon avoided cost will provide substantially less value to some technologies as other technologies receive retail credit for a higher percentage of power.**

- **Properly sized generation should produce no more energy than can be utilized on-site within a year. Consequently, properly sized generation should build a NEG balance during the high production season that can be totally utilized during the low production season. Implementing a change that provides an incentive to oversize generation clearly defies the Commission-approved consensus agreement that states:**

  "Customer generation systems also will be limited in size, not to exceed the customer's self-service needs. Non-dispatchable generation systems (e.g., wind and solar) shall be sized not to exceed the customer's annual energy needs, measured in kilowatt-hours (kWh)." (Page 6 of Exhibit A to the 3/29/2005 Order, MPSC Case No. U-14346.)

- **Treating net metering credits paid to customers as any other recoverable power supply cost would include these credits in the Power Supply Cost Recovery (PSCR) process. Net metering credits paid to customers are Retail Power Supply credits and are substantially above market costs. Passing these through the PSCR would charge all customers for these above market purchases. Other customer groups not wishing to subsidize the net metering customers would undoubtedly challenge this in PSCR proceedings.**

- The utility may choose to calculate the distribution and surcharges the customer would have paid, based on their previous year's usage, absent net metering, but this is done as part of utility accounting for the purpose of making a request to the Commission for future cost recovery and not shown on the customer's bill.

  - **Detroit Edison cannot support this provision. Implementing a change for customers without generation metering stipulating that for such customers, T&D and other eligible costs are NOT recoverable through a separate rate charge designed to assure that the Utility recovers the same share of T&D costs it would have received from the Detroit Edison customer absent net**

metering clearly defies the Commission approved-consensus agreement that states:

> "If a Utility chooses to utilize a single meter that is not capable of directly measuring the output of the customer's generator, then the customer shall be billed and pay for their net energy consumption using the same method ordinarily applied to a customer of the same class, absent net metering. For such customers, T&D and other eligible costs are recoverable through a separate rate charge designed to assure that the Utility recovers the same share of T&D costs it would have received from the customer absent net metering." (Page 4 of Exhibit A to the 3/29/2005 Order, MPSC Case No. U- 14346.)

Requests to the Commission for cost recovery would be hampered by lack of substantiation of the cost to be recovered. There would be no metered quantities upon which to base the amounts to be recovered.

- Customer bills will have a normal billing section for the electricity delivered by the utility and then the following extra lines:
  - **Detroit Edison cannot support the billing statement provisions below:**
  - **Detroit Edison cannot support any modification stipulating monetary carryover.**
  - **Due to rate structures that charge different rates for different levels of use, monetary carryover would be problematic.**
  - **Ongoing monetary credits could be viewed as a financial obligation on the Company, that may have tax implications and disclosure requirements in annual reports and reports to the financial community.**
  - **Billing systems would require extensive changes.**

  - Carryover net metering credit from past months (in $).
  - Current month net metering credit based on current month electricity deliveries to the utility (in $). This is the kWh of electricity generated by the customer and delivered to the utility, multiplied by the total power supply charges. (Staff prefers this line item will also indicate the number of kWh and amount of credit per kWh.)
  - Total net metering credit applied to this month's bill.
  - Net metering credit carried over to the next month.
  - Minimum bill/monthly customer charge
  - Total bill due

General Comments

Detroit Edison's net metering program currently provides above value credit to net metering customers.

Program operating costs have been incurred which are not recouped from the net metering customers.

Retail credit is provided for distribution costs attributable to the net metering customer for generation utilized in the current billing period.

Retail Power Supply credit substantially above market power supply costs is provided to net-metered customers for NEG returned to the site.

Since transmission is included in power supply charges, Retail Transmission Service credit is provided for transmission costs attributable to the net metering customer for all generation utilized in the current billing period as well as for NEG returned to the site.

The customer utilizes the system to effectively store NEG without compensation to the utility for this service. The fair market value of this service would roughly equal the cost of the battery storage equipment the customer avoids.

The Company tests and maintains a billing quality generation meter and offers the customer data from that meter to facilitate billing for any RECs the net metering customer wishes to sell. These items are provided at no charge by Detroit Edison and allows any net metering customer to sell RECs without incurring those expenses.

The Company provides the customer with an exact calculation of the savings attributable to his renewable generation.

The Company initiated the program voluntarily based on a Commission-approved consensus agreement. Detroit Edison voluntarily provided Retail credit for transmission and distribution (T&D) costs attributable to the net metering customer for generation utilized in the current billing period and a Retail Power Supply credit substantially above market power supply costs for NEG returned to the site only because a metering mechanism was used that allowed these recoverable costs to be accurately tracked.

When asked to propose a single meter proposal, Detroit Edison voluntarily proposed an optional provision in full compliance with the Commission-approved consensus agreement. Detroit Edison proposed, that for single meter customers, Delivery costs be recovered through a separate rate charge designed to assure that the company recovers the same share of Delivery costs it would have received from the customer absent net metering.

The Staff proposal increases the level of subsidy, removes the ability to accurately track the subsidies provided to net metering customers, increases the risk of cost recovery, increases the complexity of utility operation, and potentially subjects the Company to additional financial monitoring and reporting requirements. The final Staff proposal would expand the availability to primary customers and secondary customers with demand charges in their base rate which the Company would no longer be able to recover. In light of these issues, Detroit Edison cannot support the Staff proposal as presently drafted.

The Company believes that the existing net metering framework arrived at through months of effort by utility, Staff, legislative and renewable energy interests should be afforded an opportunity to work before a proposal to significantly alter the program is enacted.